

Additionally, new Claim 72 is presented in order to more specifically recite a preferred embodiment of the present invention and Claim 18 has been amended for better conformity with accepted U.S. practice and/or to better depend from its antecedent claim. The subject matter of the amendment may be found in the specification as filed, inter alia, at page 25, lines 14-23. Accordingly, no new matter has been added.

Claim 17 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Although this rejection is respectfully traversed, such is plainly mooted in view of the above cancellation of that claim.

Claims 1, 5, 8 and 15-20 stand rejected under 35 U.S.C. §103(a) as being obvious over Maruyama (EP 0 553 821 B1) in view of Weissborn (J. Bacteriol., 1994, Vol. 176:2611-2618). This rejection is respectfully traversed.

As the Examiner will appreciate, amended claim 1 now recites --at least one strain of microorganism having genes responsible for production of a sugar nucleotide from NTP and a sugar selected from the group consisting of glucose, fructose, galactose, N-acetylglucosamine, N-

acetylgalactosamine, mannose, N-acetylmannosamine and N-acetylneuraminic acid, or a treated product of the culture broth--.

As a result, the enzyme source b) is clarified as culture broth(s) of at least one strain of microorganism or a treated product of such culture broth(s). Specifically, as discussed in the specification as filed, enzyme source b) is a culture broth or broths derived from at least one strain of microorganism, e.g., which may comprise a recombinant microorganism. See claim 72.

Moreover, in amended claim 1, the sugar used as the substrate is plainly limited to glucose, fructose, galactose, N-acetylglucosamine, N-acetylgalactosamine, mannose, N-acetylmannosamine and N-acetylneuraminic acid.

Weissbom simply discloses that UDP-glucose is detected in a reaction solution using a cell extract containing the galU gene product of *E. coli* from UTP and glucose 1-phosphate, and only confirms the activity of galU gene product. Weissbom neither discloses nor suggest that the sugar nucleotide can be produced using as substrate Applicants' sugars instead of glucose phosphate.

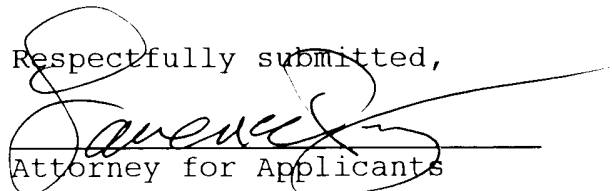
Accordingly, even if Weissbom's method of confirming the activity of galU gene product is combined with Maruyama's method of producing UTP, there is simply no prima facie case of obviousness.

In view of the above amendments and remarks, Applicants submit that all of the Examiner's concerns are now overcome and the claims are now in allowable condition. Accordingly, reconsideration and allowance of this application is earnestly solicited.

Claims 1, 5, 15, 16, 18, 20 and 72 remain presented for continued prosecution.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should be directed to our below listed address.

Respectfully submitted,

  
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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. (Twice Amended) A process for producing a sugar nucleotide, which comprises:
  - selecting, as enzyme sources, a) a culture broth of a microorganism capable of producing nucleoside-5'-triphosphate ("NTP") from a nucleotide precursor, or a treated product of the culture broth, and b) a culture broth or culture broths, of [a] at least one strain of microorganism having genes responsible for production of a sugar nucleotide from NTP and a sugar selected from the group consisting of glucose, fructose, galactose, N-acetylglucosamine, N-acetylgalactosamine, mannose, N-acetylmannosamine and N-acetylneuraminic acid, [and NTP, or a recombinant microorganism having at least one gene, which is derived from microorganism, responsible for production of a sugar nucleotide from a sugar and NTP], or a treated product of the culture broth;
  - allowing the enzyme sources, the nucleotide precursor and the sugar to be present in an aqueous medium to

form and accumulate the sugar nucleotide in the aqueous medium; and

recovering the sugar nucleotide from the aqueous medium.

18. (Amended) The process according to claim [17]72, wherein [at least one] the recombinant microorganism is selected from microorganisms belonging to the genus *Escherichia* and the genus *Corynebacterium*.